

December 15, 1971

Mr. Joseph M. Devereaux  
Director of Operations  
Philadelphia Gas Works  
1800 North Ninth Street  
Philadelphia, Pennsylvania 19122

Dear Mr. Devereaux:

This is in further reply to your letter of September 24, 1971, where you requested an interpretation of §§192.455 and 192.483 of our regulations on corrosion control, 49 CFR Part 192, Subpart I.

The interpretation of Subpart I, Requirements for Corrosion Control, and your field practice as presented in your letter of September 24, is correct. Where replacement of cast iron pipe is made for reasons other than corrosion, and where the section of cast iron pipe being replaced shows no evidence of corrosion, the new ductile iron replacement pipe does not require corrosion control (See §192.455).

With regard to your question on §192.483, pipe segments removed and replaced with other pipe for reasons other than active corrosion need not be coated or cathodically protected. Of course, any time a dissimilar metal is used in the replacement, it must be electrically isolated in accordance with §192.467. It is recognized that in the use of ductile iron pipe, this electrical isolation is accomplished with the rubber gasketed bell and spigot joints.

We trust this clears up any questions you may have regarding these regulations.

Sincerely,

\signed\

Joseph C. Caldwell  
Acting Director  
Office of Pipeline Safety

November 17, 1971

SUBJECT: Interpretation of Subpart I, Requirements for Corrosion Control - Replacement of CI. Pipe with Ductile Iron Pipe for Reasons other than corrosion.

FROM: Assistant Chief, Technical Division

TO: Chief, Technical Division

In line with Mr. Caldwell's processing instructions of September 23, 1971, Paragraph 5(c) and as requested by your October 29 notation, following is a suggested draft reply to Mr. Devereaux:

Dear Mr. Devereaux:

The interpretation of Subpart I, Requirements for Corrosion Control, and your field practice as presented in your letter of September 24, is correct. Where replacement of cast iron pipe is made for reasons other than corrosion, and where the section of cast iron pie being replaced shows no evidence of corrosion, the new ductile iron replacement pipe does not require corrosion control (see §192.455).

With regard to your question §192.483, pipe segments removed and replaced with other pipe for reasons other than active corrosion need not be coated or cathodically protected. Of course, any time a dissimilar metal is used in the replacement, it must be electrically isolated in accordance with Section 192.467. It is recognized that in the use of ductile iron pipe, this electrical isolation is accomplished with the rubber gasketed bell and spigot joints.

I trust this clears up any question you may have, regarding this section of the regulations.

Sincerely,

J.C.C.

October 12, 1971

Mr. Joseph M. Devereaux  
Director of Operations  
Philadelphia Gas Works  
1800 North Ninth Street  
Philadelphia, Pennsylvania 19122

Dear Mr. Devereaux:

Thank you for your letter of September 24, 1971, requesting an interpretation of Sections 192.455 and 192.483 of our regulations on corrosion control, 49 CFR Part 192, Subpart I.

This request will be reviewed by our Technical Division, and we will advise you as soon as possible of our interpretations of these sections as they relate to your specific problem.

Sincerely,

\signed\

Robert M. Craig  
Chief, Regulations Division  
Office of Pipeline Safety

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September 24, 1971

Mr. Joseph C. Caldwell  
Acting Director  
Office of Pipeline Safety  
Federal Office Building 10-A  
800 Independence Avenue, SW  
Washington, D.C. 20590

Dear Mr. Caldwell:

I wish to confirm our recent request for interpretation of Subpart I, Requirements for Corrosion Control, of Part 192 of the Minimum Federal Safety Standards: Transportation of Natural or Other Gases by Pipeline.

First, let us review the background that prompts our request. It is and has been for many years our policy, in the interest of public safety, to replace cast iron pipe where the foundation of that pipe has been disturbed by excavations made to install deeper (transverse or parallel) utility structures, such as water mains, conduits, sewers, etc. We also follow this same policy where the foundation beneath a cast iron main is affected by the erosion of earth resulting from the failure of fluid carrying facilities, such as water pipes and sewers.

Figure #1 (attached) illustrates a typical street cross-section where an excavation is made to install a sewer at right angles and beneath an existing gas main. Under such conditions where the gas main is cast iron pipe, it has been our policy to replace the cast iron pipe with ductile iron pipe beyond the one horizontal and one vertical slope lines of the excavation. In this case the ductile iron replacement pipe would normally be installed directly in the line of the existing main.

Figure #2 illustrates a similar excavation, but in this case the sewer excavation parallels the existing gas main. Under this condition we would replace the existing gas main with ductile iron and relocate it beyond a one horizontal to two vertical slope line of the excavation.

Our purpose in installing ductile iron has been to provide a piping material which has beam strength (exceeding even that of steel) sufficient to withstand the external loading imposed by the backfill and by subsequent settlement of the excavation. Except where, by inspection, we have found evidence of active corrosion, it has been our practice to install the ductile iron replacement pipe without coating or cathodic protection. Where evidence of active corrosion exists, the replacement would be with coated and cathodically protected steel pipe. Where active corrosion

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does not exist, we consider the installation of ductile iron pipe without coating and cathodic protection to be a safe practice since this pipe is being installed in an environment which has not been corrosive to cast iron pipe over a long period of years. Also, for all practical purposes the ductile iron replacement pipe is anodically neutral to the existing cast iron line into which it is being installed, and the ductile iron replacement pipe is not electrically continuous with the existing cast iron line since it is isolated from the existing cast iron pipe with rubber (synthetic) gasketed mechanical joints or couplings.

Our specific question of interpretation is as follows:

(1) Is it intended that Section 192.455 is applicable to installations of metallic pipe made to replace pipe removed from a submerged or buried pipeline for reasons other than external corrosion, such as for structural reasons as described above?

Or, (considering that Section 192.483 very clearly spells out what corrosion control measures must be employed on metallic pipe that replaces pipe that is removed from a buried or submerged pipeline because of external corrosion), (2) is it intended by the omission of specific reference to the replacement of metallic pipe that replaces pipe removed from a submerged or buried pipeline for reasons other than external corrosion, that the operator may exercise his judgment regarding corrosion control measures where, by physical examination in the field, it is determined that the pipe being removed is not subject to active corrosion?

An early response to this request for an interpretation will be appreciated.

Sincerely,

\signed\

Joseph M. Devereaux